

Tropical influences on recent and historical droughts over North America

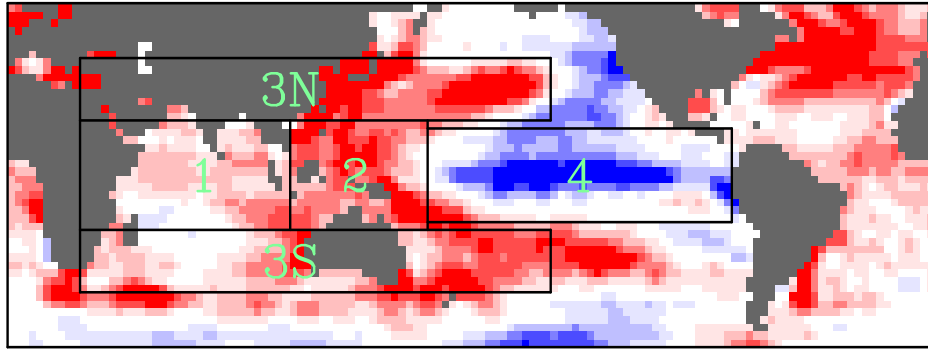


Fig. 1 The sub-domains of the Indo-Pacific Ocean, indicated by the boxes, used for the new GCM experiments. Superimposed in the background is the SST anomaly averaged from July 1998-June 2002. Red and blue are positive and negative.

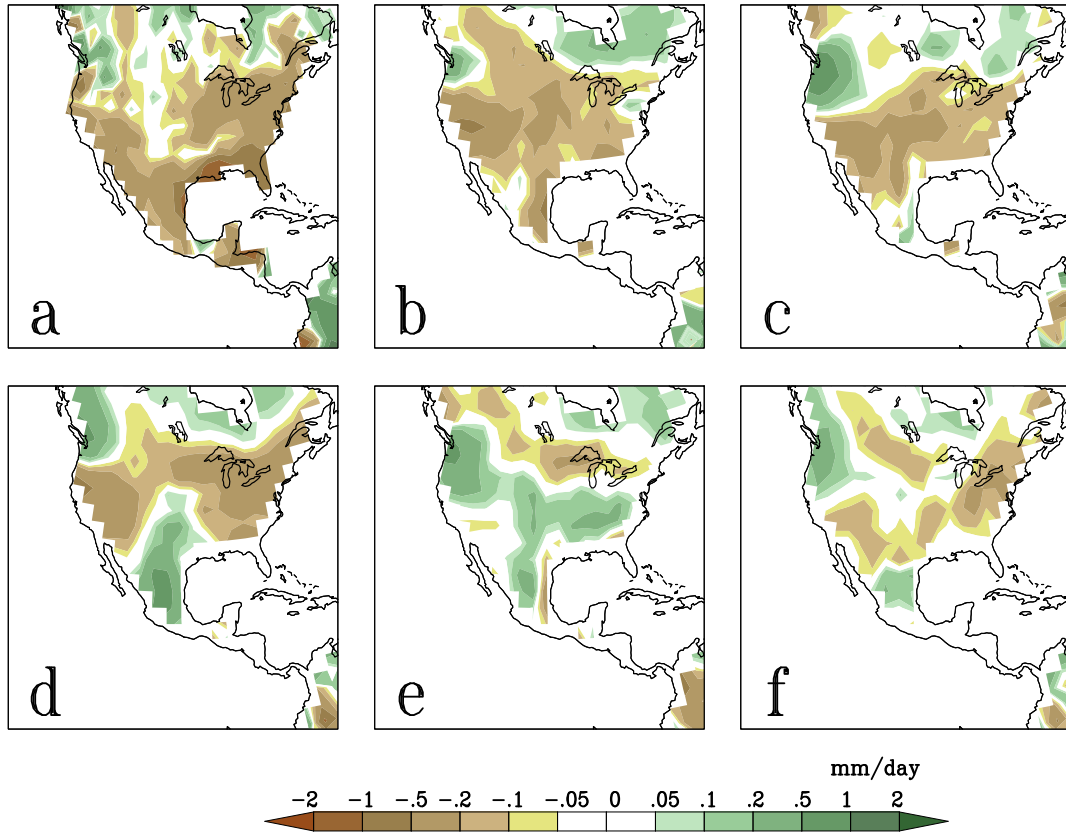


Fig. 2 The January-May precipitation anomalies over the U. S. for the 1998-2002 epoch from observation and GCM simulations. The observation based on the CMAP data set is shown in (a). The rest are the simulations forced with (b) global, (c) tropical eastern Pacific (box 4 in Fig. 1), (d) tropical Indian Ocean and western Pacific (box 1+2), (e) tropical Indian Ocean alone (box 1), and (f) Off-equatorial (box 3N and 3S) SST anomalies.

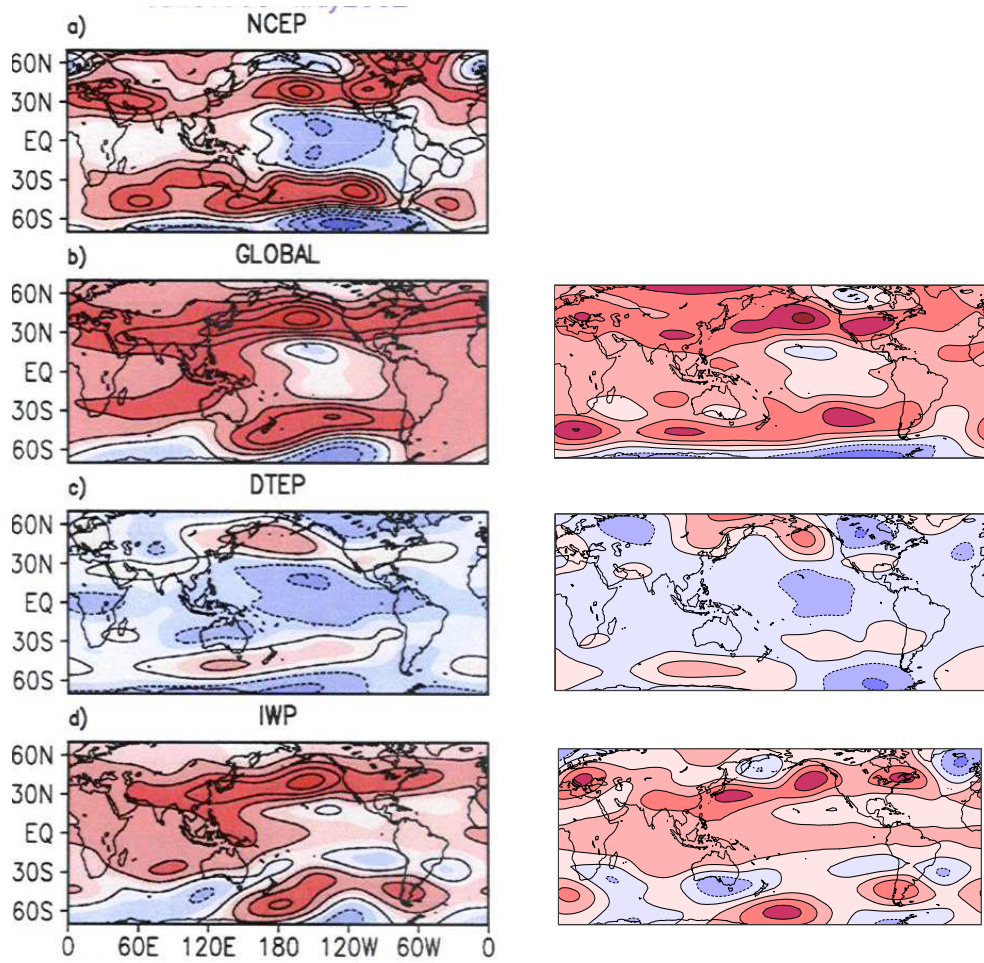


Fig. 3 The annual mean 200 hPa geopotential height anomalies for the 1998-2002 epoch. The observation from NCEP reanalysis is shown in the top left panel, followed by (top to bottom) the GFDL AM2 model simulations forced with global, eastern Pacific, and TIWP+off equatorial SST anomalies. All left panels are from Lau et al. (2006). The right panels are the counterparts of the GFDL simulations using NCAR CCM3 performed at LDEO. Contour interval is 10 m. Red and blue are positive and negative.